

**From:** Mason, Steve  
**To:** [Vela, Austin](#)  
**Subject:** RE: Inquiry  
**Date:** Monday, April 08, 2013 11:50:00 AM  
**Attachments:** [006MSDS.pdf](#)

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Yes, VOC stands for volatile organic compounds

LEL stands for lower explosive limit, which is a measurement of flammable or combustible vapors in the atmosphere... it is used mainly for the safety of the response personnel to ensure they are not in an atmosphere that could be harmful, especially in a confined space...

Benzene and xylene are VOCs that are combined with all the other VOCs that may be present, in the data files...

Benzene would be the primary constituent of concern in the crude oil, due to being a carcinogen...

Since there have been so few hits, I don't think the graph would be very expressive...

I would go to the internet and print out the Material Safety Data Sheet (MSDS) for the oil, and then walk through the MSDS with the students on what it says...

<http://www.epaossc.org/sites/8502/files/Wabasca%20Heavy%20MSDS.rtf>

I am attaching a document I developed years ago on how to read an MSDS...

-----Original Message-----

**From:** Vela, Austin  
**Sent:** Monday, April 08, 2013 11:26 AM  
**To:** Mason, Steve  
**Subject:** Inquiry

Could you help me with interpretation of your air quality monitoring tables? I assume VOC stands for volatile organic compounds, but I wish it said so somewhere so I can be positive. What does LEL stand for? Why are benzene and zylene listed as analytes on the summary page but not in the longer data tables? Is it because they are not of concern or because the longer tables are simplified? Anyway, I would like to involve the students in graphing some of the data, but not until I have a better understanding of it myself. Any hints? Any suggestions of what else I could have the students doing? We are making posters and gathering news updates, but I would like to help the students feel like scientists and not just observers... Thank you for your